NAVY STANDARD INTEGRATED PERSONNEL SYSTEM (NSIPS)

Navy ACAT IAM Program		**Prime Contractor**
Total Number of Systems:	850	Lockheed Martin
Total Program Cost (TY$):	$118M	
Average Unit Cost (TY$):	$0.14M	
Life cycle cost (TY$):	$470M	
Full-rate production:	3QFY00	

SYSTEM DESCRIPTION & CONTRIBUTION TO JOINT VISION 2010

The Navy Standard Integrated Personnel System (NSIPS) will consolidate the Navy active, reserve, and retired personnel field source data collection systems, both ashore and afloat. The objective is to produce a standard single point of entry system for all personnel and pay information. NSIPS will replace the personnel and pay functionality of four separate legacy systems: (1) Reserve Standard Training, Administration, and Readiness Support (Manpower and Personnel) System; (2) Source Data System; (3) Uniform Microcomputer Disbursing System; and (4) Diary Message Reporting System. The

primary interfaces for NSIPS will be with systems belonging to the Defense Finance and Accounting Service (DFAS).

The architecture for NSIPS calls for client-server architecture with information held at the local level and at regional data servers, using a corporate-level data base for survey purposes. Personnel and pay transactions must first be verified by the appropriate corporate-level system before being posted on the database of record at the regional personnel offices.

Since NSIPS will help collate and collect personnel information as well as provide automated tools for data retrieval (e.g., automated search and query), NSIPS supports the ***Joint Vision 2010*** paradigm by providing commanders with up-to-date, accessible information on the strength of their forces, hence facilitating the concept of ***dominant maneuver***.

BACKGROUND INFORMATION

Prior to Milestone II (1QFY98), the program developed a prototype system to prove out the planned architecture and "user friendliness" of the graphical user interface. *PeopleSoft* was selected as the software package for its basic human resource functionality. The software package was customized and Navy requirements were incorporated with the help of a panel of personnelists, who had experience with the legacy systems.

An operational assessment on the prototype was conducted in August and September of 1997. The assessment consisted of executing two scenarios involving active duty and reservists, respectively. Functions exercised included accessions, gains, losses, maintenance of personnel and pay account information, and data transfer (simulated among local, regional, and corporate-level systems).

In May 1998, an Acquisition Decision Memorandum (ADM) approved funding for hardware deployment to 64 NSIPS sites. The Working Level Integrated Product Team reviewed the NSIPS request for program authority to expend additional funds to acquire and deploy hardware to remaining ships and all shore sites prior to Milestone III in September 1998. Shortly thereafter, the program then experienced software development problems that caused a deviation to the Acquisition Program Baseline.

A new ADM authorizing additional funding for continued hardware deployment through 1QCY99 was signed in December 1998. This ADM was subject to certain conditions. The NSIPS PM had to ensure that the four NSIPS legacy systems were Y2K-compliant and had to provide the Y2K certification of NSIPS by March 1999. Also, the PM had to facilitate the planned independent assessment of the software development effort to validate the estimated cost and schedule to complete the effort.

The Working-Level Integrated Product Team convened in January 1999 to assess whether NSIPS was adequately managing risks over software development and determine whether the program should continue advanced hardware deployment to the remaining sites. Based on the Navy's operational test agency's independent assessment of the software development effort and the information provided during the review, an Acquisition Decision Memorandum was approved granting program authority to expend additional funds to continue hardware deployment through 3QCY99. Before the expended fielding, the Department of Navy had to certify the compelling operational needs for fielding NSIPS hardware that warranted accepting the risks associated with its deployment in advance of successful system testing. Until that certification was provided, authority to deploy additional hardware was restricted only through

2QCY99. In addition, the PM had to submit an approved revised Acquisition Program Baseline within 30 days. The authorization to continue deployment for the remaining systems would be based on successfully meeting these requirements as well as successful completion of operational test and evaluation of NSIPS software Release 0.

TEST & EVALUATION ACTIVITY

Navy's Commander, Operational Test and Evaluation Force (COMOPTEVFOR) conducted a DT assist during May 1999. COMOPTEVFOR reported that during the DT assist, the basic NSIPS Release 0 objectives were performed using the requirement verification test plan, technical evaluation plan, and additional scenarios that were requested to be tracked. The Release 0 Tech-evaluation completed in August assessed that NSIPS: (1) was showing measurable success, (2) demonstrated the software maturity required in the March 1999 ADM, and (3) had no major software reports opened. Based on these results, the entrance criterion to OT appeared to have been met. Accordingly, COMOPTEVFOR began operational testing of NSIPS Release 0 in September 1999.

However, release 0 OPEVAL that began on September 14 was suspended on September 23. DFAS cited issues with transaction sets and needed additional time to complete their certification. NSIPS PMO conducted Release 0 end-to-end testing on October 6-7. OPTEVFOR witnessed this testing from a shipboard environment and reported that some of the deficiencies discovered during the September OPEVAL had been demonstrated as fixed, whereas other issues remained open.

An additional end-to-end test on the updated software (Build 29) was conducted with the results meeting the entrance criteria for operation testing set by Navy's test agency. The operational test was conducted at the end of November 1990.

TEST & EVALUATION ASSESSMENT

Prior to OPTEVFOR operational test of NSIPS, the system end-to-end testing uncovered a variety of effectiveness and suitability issues, most notably, an inadequate system configuration, test environment, and supportability. Another major concern was interoperability with DFAS's Defense Joint Military-Pay System Reserve Component (DJMS-RC). These issues were resolved prior to operational testing.

Test data from the OT is still undergoing analysis. Publication of emerging results and final report is scheduled for the end of January or early February 2000

CONCLUSIONS, RECOMMENDATIONS, LESSONS LEARNED

The ORD requires the new system to replace the functionality of four legacy systems. However, it does not specify how the new system will improve the business practices of Navy personnel offices. In order to conduct an adequate operational test of NSIPS, DOT&E required the legacy system performance data to be collected at the test sites to allow a baseline comparison. This data was used to help determine thresholds for operational testing.

NSIPS is under development, with in-lab developmental testing taking place by the contractor. Robust developmental testing is crucial to ensure that operational testing truly tests NSIPS Release 0's ability to support the pay and personnel functions of the reserve forces. Based upon COMOPTEVFOR's decision to stop operational testing, the exit criteria had not been met by the developmental testing. The "lesson learned" is the importance of meeting the criteria rather than meeting a schedule. Unfortunately this is not a new lesson to be learned.

Interoperability is a major system requirement, however, bringing all the system to the test can become difficult and may impact testing schedules. A case in point is the interoperability requirements between NSIPS and DFAS. The NSIPS ADM required a technical evaluation of NSIPS Release 0 with planned end-to-end testing with the DJMS-RC. Due to the DJMS-RC testing schedule, DFAS was unable to support the NSIPS technical and operational evaluations planned for April and June 1999, respectively. Alternative strategies were explored and resolved. However, these requirements forced the PM to become schedule driven in some of the planning and testing to meet the schedules with interfacing systems.